

WHAT IS CLAIMED IS:

1. A lighting fixture frame and mounting panel apparatus comprising:
a fixture frame including an upper edge, a lower edge, and a vertically oriented interior wall circumscribing a central opening and a panel path;
5 a plurality of stop pads formed in the vicinity of the upper edge and projecting inwardly from the interior wall into the panel path, the pads being formed with respective lower surfaces that collectively define a first horizontal plane;
the interior wall including a plurality of resilient legs formed with respective teeth projecting inwardly into the panel path having respective upwardly facing support
10 surfaces collectively configured to define a second horizontal plane spaced apart from the first horizontal plane to define a horizontal panel slot therebetween; and
a fixture panel complementally contoured and dimensioned for slidable receipt through the central opening and advancement along the panel path to engage the respective teeth to deflect them clear of the path and to further engage the stop pads and
15 clear the teeth such that the teeth are urged back into the panel path and disposed below the panel.
2. The lighting fixture frame and mounting panel apparatus of claim 1 wherein:
the teeth are formed with respective bottom surfaces defining cam surfaces
20 configured for engagement of corresponding portions of the marginal edges of the panel as it is advanced along the panel path; and
the legs are configured to, upon such engagement of the panel with the teeth, flex outwardly from a normal position, and, upon continued advancement of the panel causing the cam surfaces to clear the panel, flex back to their normal position, thereby positioning
25 the teeth under the panel and engaging the support surfaces with corresponding portions thereof to cooperate with the stop pads in securing the panel in the panel slot.

3. The lighting fixture frame and mounting panel apparatus of claim 1 wherein:
the marginal edges of the panel are formed with respective cam surfaces
configured for engagement of corresponding portions of the teeth as the panel is
advanced along the panel path; and

5 the legs are configured to, upon such engagement of the teeth with the cam
surfaces, flex outwardly from a normal position, and, upon continued advancement of the
panel causing the teeth to clear the cam surfaces, flex back to their normal position,
thereby positioning the teeth under the panel and engaging the support surfaces with
corresponding portions thereof to cooperate with the stop pads in securing the panel in
10 the panel slot.

4. The lighting fixture frame and mounting panel apparatus of claim 1 wherein:
the stop pads are formed on their respective lower surfaces with respective
downwardly projecting registration pins; and

15 the panel is formed with respective corresponding bores for receiving the
registration pins therethrough when the panel is received in the panel slot.

5. The lighting fixture frame and mounting panel apparatus of claim 1 wherein:
the panel is formed with a bottom panel side that includes a lighting device.

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6. The lighting fixture frame and mounting panel apparatus of claim 5 including:
a lens configured for removable receipt in the frame for substantially occupying
the central opening and covering and protecting the lighting device.

25 7. The lighting fixture frame and mounting panel apparatus of claim 1 wherein:
the panel is formed having a predetermined depth; and
the panel slot is dimensioned to correspond to the predetermined depth.

8. The lighting fixture frame and mounting panel apparatus of claim 1 wherein:
the upper surfaces of the stop pads are coplanar with the upper edge of the frame.

9. A lighting fixture frame and mounting panel apparatus comprising:

5 a frame formed with a plurality of frame segments including respective vertically oriented interior walls defining therebetween a central opening and a panel passage path;
at least one stop pad projecting inwardly from the upper extremity of the interior wall of each frame segment and including a lower surface such that the collective lower surfaces of the stop pads are disposed in a first horizontal plane;

10 at least one resilient leg included on the interior wall of each frame segment and projecting upwardly from the lower extremity of the interior wall to terminate in a horizontally inwardly projecting tooth that includes a downwardly facing cam surface on one side and an upwardly facing support surface on the opposite side such that the collective support surfaces of the teeth are disposed in a second horizontal plane spaced a
15 selected distance below the first horizontal plane to define a panel slot therebetween; and

a panel having a bottom panel side and a top panel side and being complementally configured and contoured for slidable receipt upwardly through the central opening and advancement along the panel passage path, the panel being further formed with a thickness corresponding with the selected distance such that, when the panel is advanced
20 past the teeth of the resilient legs and the top panel side is abutted against the lower surfaces of the stop pads, the panel may be held in place in the panel slot.

10. The lighting fixture frame and mounting panel apparatus of claim 9 wherein:

the teeth are configured such that upward advancement of the panel along the
25 panel passage path will cause engagement of corresponding portions of the marginal edges of the top panel side with the cam surfaces of the teeth; and

the legs are configured to flex outwardly from a resting state upon such engagement, and, upon continued advancement of the panel causing the cam surfaces to

clear the panel, flex back to their resting state, thereby positioning the respective support surfaces of the teeth under corresponding portions of the bottom panel side in the vicinity of its marginal edges to cooperate with the stop pads in securing the panel in the panel slot.

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11. The lighting fixture frame and mounting panel apparatus of claim 9 wherein:
the interior wall of each frame segment is formed with two laterally spaced apart resilient legs; and
the at least one stop pad is disposed therebetween.

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12. The lighting fixture frame and mounting panel apparatus of claim 9 wherein:
the interior wall of each frame segment is formed with two laterally spaced apart resilient legs and two laterally spaced apart stop pads; and
the stop pads are disposed between the resilient legs.

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13. The lighting fixture frame and mounting panel apparatus of claim 9 wherein:
the bottom panel side includes a lighting device.

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14. The lighting fixture frame and mounting panel apparatus of claim 13 including:
a lens configured for removable receipt in the frame for substantially occupying the central opening and covering and protecting the lighting device.

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15. A method of assembling a lighting fixture frame and mounting panel apparatus including:
selecting a fixture frame including a vertically oriented interior wall circumscribing a central opening and a panel passage path, a plurality of stop pads that project inwardly from the interior wall and include respective lower surfaces that collectively define a first horizontal plane, and a plurality of upwardly extending resilient

legs included on the interior wall and terminating in respective inwardly projecting teeth having downwardly facing cam surfaces and upwardly facing support surfaces collectively configured to define a second horizontal plane spaced a selected distance below the first horizontal plane to define a panel slot therebetween;

- 5 selecting a fixture panel complementally contoured for receipt in the central opening and advancement along the panel passage path, the panel being configured with a top panel side and a bottom panel side and having a panel depth corresponding to the selected distance;

- 10 positioning the panel in the central opening and advancing it upwardly through the panel passage path so that the top panel side will engage the cam surfaces and the resilient legs will then be flexed outwardly from a resting position;

 advancing the panel further to cause the cam surfaces to be released from their engagement with the panel such that the resilient legs will flex back to their resting position; and

- 15 securing the panel in the panel slot with the top panel side engaging the lower surfaces of the pads and the bottom panel side engaging the support surfaces of the teeth.

16. The method of claim 15 including:
 mounting a lighting device to the bottom panel side.

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17. The method of claim 16 including:
 releasably mounting a lens to the frame to substantially occupy the central opening and cover and protect the lighting device.

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18. A light fixture apparatus comprising:
 a frame formed with a parametric interior vertical wall forming a downwardly facing opening and an upwardly extending panel pathway;

stop means formed on the upper side of the frame and projecting horizontally into such pathway;

a light mounting panel configured to be received slidably through the opening and up into the pathway to abut the stop means; and

5 locking means including a plurality of teeth normally exposed in a horizontal plane spaced downwardly from the stop means and normally projecting and biased into such pathway but engageable with the panel as it is shifted upwardly into such pathway as to be deflected from such pathway to allow the panel to clear such teeth and operative upon such clearance to be biased back into such pathway.

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19. A direct current recreational vehicle light fixture apparatus comprising:

a horizontally disposed hollow, channel-shaped, upwardly opening frame configured with an interior vertical wall defining a downwardly opening panel-receiving opening leading upwardly into a panel-receiving pathway;

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the frame including a plurality of frame segments which are each formed with a pair of laterally projecting vertical reinforcing webs defining reinforcing boxes and respective stop pads projecting horizontally inwardly from the respective reinforcing boxes, the stop pads being configured with respective lower surfaces collectively disposed in a first horizontal plane and with respective registration pins projecting

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downwardly from such lower surfaces;

the frame segments intersecting to define a plurality of corners configured with vertical mounting barrels defining vertical bores for receipt of respective fastener screws;

the vertical wall being further formed with lightning holes spaced there along which are so arranged and positioned as to form, in a laterally spaced apart relationship

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along each frame segment, a pair of upstanding flexible legs that extend horizontally inwardly at their upper extremities to define respective teeth formed with respective support surfaces collectively positioned in a second horizontal plane spaced downwardly

from the first horizontal plane, the teeth further being configured with respective upwardly and inwardly sloped cam surfaces; and

a florescent light tube mounting panel configured to be slidably received into such panel-receiving opening and pathway and to, upon upward shifting thereof in such
5 pathway, engage the respective cam services and flex the legs to shift the respective teeth outwardly to cause the panel to clear such teeth and the legs to thereafter flex to shift the teeth inwardly to dispose the respective support surfaces under the panel, the panel being further formed with a plurality of registration bores configured to be slidably received over the respective registration pins to register such panel with such frame.

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